



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,646	12/02/2005	Glenn William Goodall	51097	7269

38157 7590 01/24/2008
THE GLIDDEN COMPANY
15885 WEST SPRAGUE ROAD
STRONGVILLE, OH 44136

EXAMINER

MESH, GENNADIY

ART UNIT	PAPER NUMBER
----------	--------------

1796

MAIL DATE	DELIVERY MODE
-----------	---------------

01/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/559,646	Applicant(s) GOODALL ET AL.	
	Examiner Gennadiy Mesh	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 23-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>04/24/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, Claims 1-10 and 23 - 27 in the reply filed on November 9, 2007 is acknowledged. Claims 11 - 22 and 28 - 35 have been canceled by the Applicant.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 6 – 8, 10 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamill (GB 1,039,540 cited in ISR - hereafter International Search Report).

Regarding Claims 1, 6 - 8 and 24 Hamill discloses coating composition (see page 2, lines 20 – 60) comprising:

at least one polymer , polysaccharides or/and derivatives thereof, including plant gum, vegetable proteins and reactive compounds as epoxy resins.

Regarding Claim 10 Hamill discloses that coating is liquid, preferably in form of water based latex(see page 3, lines 65-88).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamill in view of Doner et al. (US 6,147,206 – cited in ISR) combine with evidence given by Levine (US 2005/0148056).

Discussion (see paragraph 1 above) with respect to Hamill incorporated herein by reference.

As stated above Hamill discloses coating composition including plant gum, but silent regarding source of plant gum.

However, Doner teach that high quality plant gum(comprising Hemicellulose B) is obtainable from corn fiber (see abstract). Doner further teach that corn fiber gum is highly soluble in water, colorless, lacks objectionable aroma and useful for variety of application, including film formation (see abstract).

Therefore, it would have been obvious to one of ordinary of skill at time of invention to use plant gum, obtained by method of Doner from corn fiber, due to it high solubility in water, colorless, odorless and film formation properties (see abstract) in composition disclosed by Hamill.

Regarding limitations of Claim 4: Doner teach that protein can be present in plant gum due to stable linkage between hemicelluloses and proteins (see column 2, lines 50 – 56).

Regarding limitation of Claim 5: furanose commonly present in plant materials as arabinose and xylose, which is part of hemicellulose (see evidence given by Levine - paragraph [0018],[0029],[0032] and [0034]).

3. Claims 1-10 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horley et al. (EP 0 949 307) in view of Doner et al.(US 6,147,206) combine with evidence given by Levine (US 2005/0148056).

Discussion with respect to Doner combine with Levine above(see paragraph 2) incorporated herein by reference.

Horley discloses (see abstract) aqueous architectural coating composition (water based latex paint), comprising film –forming polymeric binder, wherein modified starch (including corn starch – see lines 24-29,page 3) grafted to chains of copolymerized ethylenically unsaturated monomers in the amount up to 50 wt.% (see claim 1).

Horley also discloses that instability of aqueous starch-containing polymeric binders can lead to phase separation and unpredictable increases of viscosities (see [0004]) , but can be resolve by subjecting starch to acid or enzymatic hydrolysis with following step of reacting with molecules with functional groups (see [005]).

Note, that during enzymatic hydrolysis starch will yield variety of soluble oligo- and mono- saccharides compositionally very similar to those found in corn gum, including xylose, mannose and arabinose (evidence can be found in Levine – see [0006] and [0072]).

Therefore, it would have been to one of ordinary of skill at the time of the invention to use corn gum obtained by method of Doner from corn fiber, due to it high

solubility in water, colorless, odorless and film formation properties (see abstract) in composition disclosed by Horley in order to obtained stable aqueous based paint with out starch preparation step (as acid treatment or hydrolysis).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gennadiy Mesh whose telephone number is (571) 272 2901. The examiner can normally be reached on 10 a.m - 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272 1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gennadiy Mesh
Examiner

Application/Control Number:
10/559,646
Art Unit: 1796

Page 6

Art Unit 1796

GM

/Vasu Jagannathan/
Supervisory Patent Examiner
Technology Center 1700